PART I: EXECUTIVE SUMMARY

The District of Columbia 2000 305(b) report provides information on the quality of the City's water resources. In addition, the report describes changes since 1998 in the programs to correct impairments to D.C. waterbodies.

District of Columbia Water Quality

Thirty-one waterbodies were monitored for the goals of the Clean Water Act that apply to the District of Columbia. Each of those waterbodies have been assigned designated uses in the D.C. water quality standards. The standards also outline numeric and narrative criteria that must be met if a waterbody is to support its uses. Various types of water quality data collected during the period of 1997 to 1999 were evaluated to assess use support by the waterbodies. The evaluation found that the designated uses which directly relate to human use of the District's waters were generally not supported. The uses related to the quality of habitat for aquatic life were at least partially supported. No waterbody monitored by the Water Quality Division fully supported all of its designated uses. Though some small improvements have been observed, the District of Columbia's water quality continues to be impaired.

The following tables show the degree to which the waters of the District of Columbia supported their designated uses. Figures 1.1 to 1.4 are maps showing the degree to which those waters met their uses.

Ground water is not monitored on the same basis as surface water. This is partly due to the fact that surface water north of the city's boundary is the drinking water source for the District of Columbia. However, ground water quality is scrutinized via compliance monitoring and on-going studies.

TABLE 1.1
DESIGNATED USE SUPPORT BY RIVERS OR STREAMS

Waterbody Type: River, Streams	Degree of Use Support			
	Supporting (mi)	Partially Supporting (mi)	Not Supporting (mi)	Not Assessed (mi)
Overall Use *			38.40	
Swimmable Use	1.70		36.7	
Secondary Contact Recreation Use	8.40	6.50	23.50	

	Supporting (mi)	Partially Supporting (mi)	Not Supporting (mi)	Not Assessed (mi)
Aquatic Life Use		35.0	3.40	
Fish Consumption Use			24.30	14.10
Navigation Use	20.2[1]			

* not a designated use
[1] only 20.2 miles are designated for navigation

TABLE 1.2
DESIGNATED USE SUPPORT BY LAKES

Waterbody Type: Lake, reservoir	Degree of Use Support			
	Supporting (ac)	Partially Supporting (ac)	Not Supporting (ac)	Not Assessed (ac)
Overall Use *			238.4	
Swimmable Use			238.4	
Secondary Contact Recreation Use		135.7	102.7	
Aquatic Life Use	27.30	211.1		
Fish Consumption Use			238.4	
Navigation Use	238.4			

* not a designated use

TABLE 1.3
DESIGNATED USE SUPPORT BY ESTUARIES

Waterbody Type: Estuary	Degree of Use Support			
	Supporting (mi^2)	Partially Supporting (mi^2)	Not Supporting (mi^2)	Not Assessed (mi^2)
Overall Use *			5.93	
Swimmable Use			5.93	
Secondary Contact Recreation Use	3.35	1.38	1.20	
Aquatic Life Use	5.33	0.60		
Fish Consumption Use			5.93	
Navigation Use	5.93			

* not a designated use

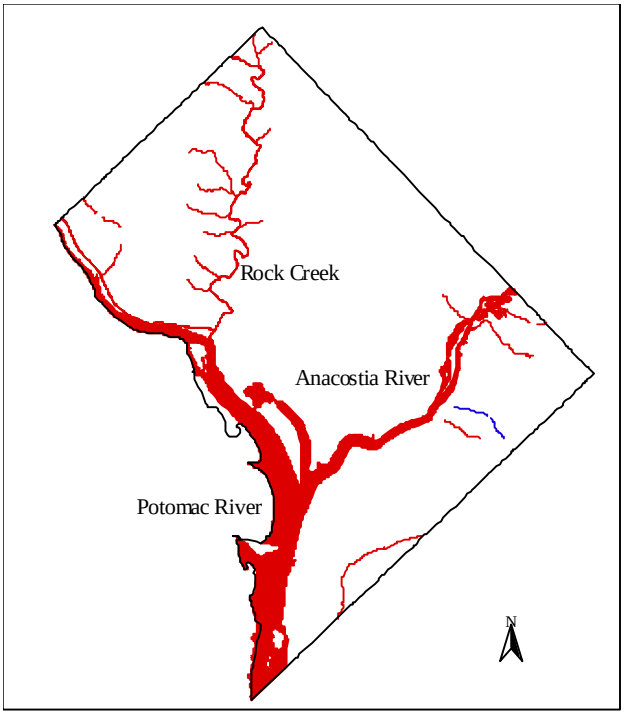

Figure 1.1: Degree of Support for the Protection of Primary Contact Recreation (Class A).

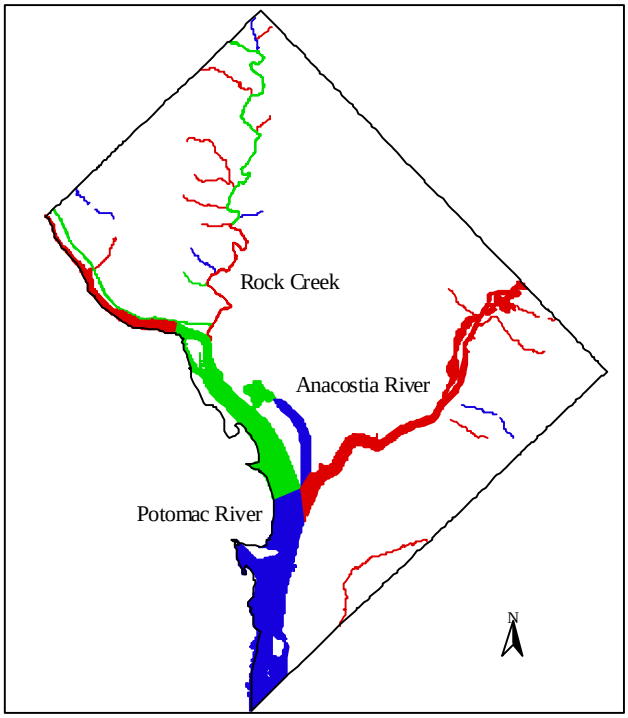

Figure 1.2: Degree of Support for the Protection of Secondary Contact Recreation and Aesthetic Enjoyment (Class B).

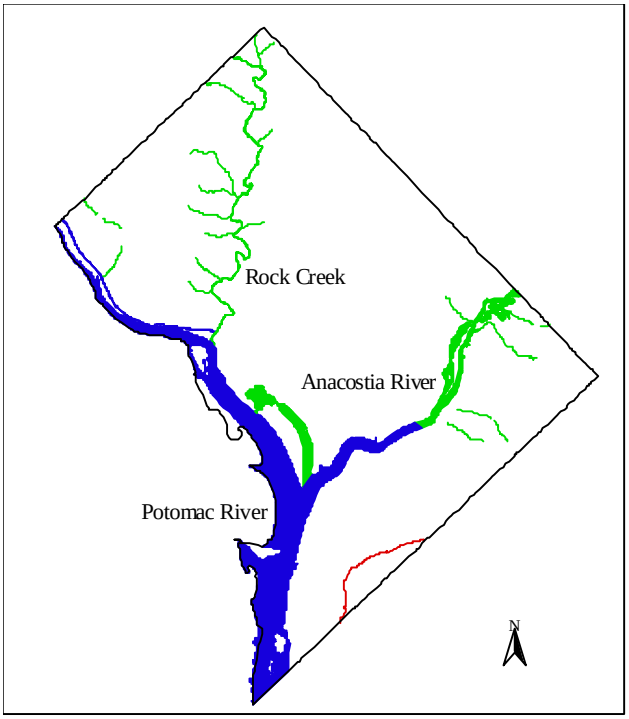

Figure 1.3: Degree of Support for the Protection and Propagation of Fish, Shellfish, and Wildlife (Class C).

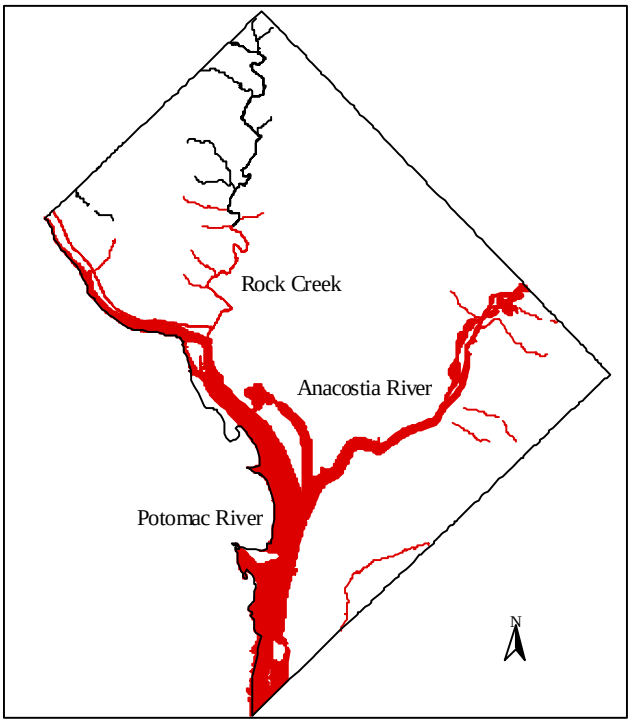

Figure 1.4: Degree of Support for the Protection of Human Health Related to the Consumption of Fish and Shellfish (Class D).

Causes and Sources of Water Quality Impairment

The major causes of impairment to D.C. rivers are total toxics, pathogens, and organic enrichment/low dissolved oxygen (D.O.). Lakes are impaired by total toxics and pathogens. While the estuaries are impaired by total toxics, pathogens, and organic enrichment/low D.O.

The sources with major impacts on D.C. waters are combined sewer overflows, urban runoff/storm sewers. Municipal point sources on the estuaries also have a major impact. Rivers and streams are also impacted by habitat modification and unknown sources.

Programs to Correct Impairment

Several programs within the District of Columbia's Bureau of Environmental Quality are involved in activities to correct water quality impairment. The water pollution control program implements the water quality standards, monitors and inspects permitted facilities in the city, and comprehensively monitors D.C. waters to identify and stop impairment. The water pollution control program is involved in the search for solutions that will provide maximum water quality benefits.

Given the District's urban landscape, nonpoint source pollution has a large impact on its waters. The sediment and stormwater control program regulates land disturbing activities, stormwater management, and flood plain management by providing technical assistance and inspections throughout the city. The Nonpoint source program also provides education and outreach to residents and developers on pollution prevention to ensure that their actions do not further impair the District's water quality.

Several activities are coordinated within the ground water protection program. Those activities include underground storage tank installation and remediation, pesticide use certification and ground water quality standards implementation.

Water Quality Trends

The Potomac River continues to benefit from the CSO improvements and implementation of improvements at the Blue Plains wastewater treatment plant. The Anacostia River remains aesthetically and chemically polluted as action to clean up the sources of pollutants to the river has not taken place. Both of the main waterbodies, do support fish and other wildlife populations. For example, submerged aquatic vegetation is only found in a very limited area of the Anacostia River. While in the Potomac River, it is more prevalent and diverse.

Highlights

The process to revise the surface water quality standards was completed in January 2000. The revised standards address use attainability and numerical criteria for effluent limits.

The work on the construction of the Kingman Lake wetland restoration project was started in the Fall 1999 and will be completed this Summer. The planting of approximately 700,000 emergent wetland plants will instantly "green" the site.

New submerged aquatic vegetation growth in the Potomac River occurred during 1999. The diversity of vegetation also increased in the waterbody.

The two-year denitrification demonstration project at the Blue Plains wastewater treatment plant was successful. The project met the nitrogen reduction targets of 7.5 milligrams per liter year round. The plant's management is moving towards implement the denitrification process to the plant's full flow.

Issues of Special Concern

1. Control of Toxic Substances

Several studies sponsored by the District of Columbia have shown high levels of toxic pollutants in river bed sediments, particularly within the tidal Anacostia. The sources of these toxics are not well understood, and the evidence continues to show that the sources are nonpoint in nature. In addition, concerns for the effects of toxics entering the Chesapeake Bay continue to exist. To address this issue, the District of Columbia needs to continue to investigate the nature, and more clearly pinpoint, the sources of these toxic substances. The cleanup of toxics in waterbodies is an expensive and crucial endeavor. For the District, the problem will be compounded because of the limited remediation options available for an urban area. Moreover, the District's financial situation is a major impediment to undertaking remedial actions. The District of Columbia needs to seek out alternative funding sources, including Federal support.

2. Wetlands

The District recognizes that coordination, participation and review of all wetlands-related activities will be necessary if the benefits of wetlands are to be realized. Before any additional wetland restoration projects are carried out, several issues must be addressed. First, funding for wetlands-related activities, such as implementing restoration and creation projects, and monitoring should be continued. Second, proposed projects should be suitable for their proposed sites and provide for adequate vegetation planting, wildlife habitat enhancement, and monitoring. Third, the toxics in the sediment used to create wetlands should not increase the toxicity of the water column. Fourth, public education about and participation in wetland protection programs are needed.

3. Anacostia River Restoration

The District's Anacostia River has been identified as one of the ten most polluted urban rivers in the country. As the two main tributaries of the Anacostia River are found in Maryland, any effort to restore the Anacostia must be undertaken at the watershed level. Plans to control CSO, toxics, and nonpoint source pollution, to restore wetlands and sub-watersheds have been developed to address the impairment of the river. Funding for these plans should be identified if the Anacostia is to be restored.

4. Public Education

If an environmental regulation program is to be successful, knowledge of pollution problems and solutions must be shared with the public. To increase public involvement by District residents in environmental matters and reach a broader audience, the District needs additional funds specifically targeted for environmental education.

5. Combined Sewer Overflow (CSO) Abatement

The CSO problem within the District is a major concern as it is one of the major causes of nonsupport of designated uses by District waterbodies. Water quality concerns resulting from CSOs include an unpleasant physical appearance due to debris, fish kills due to dissolved oxygen depletion, and restriction of water contact recreation due to fecal coliform contamination. Although the District has already spent a considerable amount of money to deal with the CSO issue, the CSO problem still remains. The WQD intends to support projects that render maximum water quality benefits. CSO pollution abatement for the District involves substantial capital and operation and maintenance costs. Federal grant funds are made available for construction under the *CWA*.

6. Nutrient Reduction Strategies: the Chesapeake Bay Initiative

The States of Virginia, Maryland, Pennsylvania, and the District of Columbia signed the Chesapeake Bay Agreement to cleanup the Bay in 1987. In part, this agreement calls for a commitment by the states to carry out a basin-wide plan or strategy to reduce nutrient inputs to the Bay by 40% of their 1985 levels, by the year 2000. The District of Columbia developed a strategy to reduce nutrients to the Chesapeake Bay from the District of Columbia (1995). The strategy proposed to reduce nutrients at the Blue Plains WWTP by implementing of Biological Nutrient Removal (BNR) technology. The BNR technology was successfully tested at BP in a demonstration project. D.C. WASA has decided to implement BNR on a full scale at the WWTP. The success of nitrogen reduction at Blue Plains should not lessen the need to control nutrients from other sources such as nonpoint source pollution and CSO. Efforts to control these other nutrients sources must continue.

7. Matching Funds

The District of Columbia, along with several union territories, is exempt from Federal State Revolving Fund (SRF) requirements as it has only one level of government. The U. S. Congress passed a bill allowing the District of Columbia and other territories to use the SRF under Title II provisions. However, the District and the territories are not receiving the same benefits generally

associated with SRF funds. Under SRF, states are expected to provide a 20% match for any Federal money received, whereas the District has to provide a match varying from 33% to 82% of the federal grant depending on the project. The District has requested that USEPA and the U. S. Congress eliminate this disparity so that the District is not at a disadvantage to receive the Title VI funds as Title II funds.

8. Clean Water Act Reauthorization

A. Combined Sewer Overflow (CSO)

A water pollution control problem that is of major concern to the District is CSO. The District is unable to meet the high cost of CSO abatement. The District believes that any CSO abatement regulations by the Federal government should be accompanied by provisions for financial assistance. The *CWA* Reauthorization bill should include provisions for financial and technical assistance to the District to complete its CSO Abatement Program.

B. Toxics Control

Toxic substances such as PCBs, chlordane, PAHs and heavy metals were found in sediments and in the tissues of fish caught in District waters and led to the issuance of a fish consumption advisory in 1989. Removal of toxics from the environment is difficult and expensive, particularly in an urban area. The District cannot undertake these activities without Federal financial and technical assistance.

C. SRF for Water Pollution Control Projects

The District strongly feels that '201(g)(1) and '204(a)(5) of the *CWA* should not apply to funds allocated to the District under Title VI. Language should be included in the *CWA* Reauthorization to enable the District to fund projects with 80% Federal grant funding, and to seek reimbursement for past expenditures that have exceeded the 20% local funding requirement, as allowed to other states. Also, the Federal government should allow the District to use deobligated *CWA* funds for the District's water pollution control projects until the year 2001. This will allow adequate time to complete projects because of the delay often caused by the size and complexity of these projects to improve pollution control capabilities in the District.

D. Drinking Water and SRF

The District's drinking water supply system and a considerable segment of the distribution system are in need of replacement. The Army Corps of Engineers (ACE), which manages the city's drinking water system, is planning major construction projects to eliminate pollutants generated at the Dalecarlia facility to comply with the NPDES permit requirements of U.S. EPA. Major upgrades and modernization of the entire treatment system, including the distribution system, may also be necessary. The U. S. Congress should consider flexibility in allowing the use of SRF program funds for drinking water infrastructures as well. The District is a unique case as it is a union territory with a

Federal agency managing the drinking water supply system. Provisions in the reauthorized *CWA* should be included to ensure that the District, like other states, is allowed the flexibility to use SRF funds for capital improvement projects to ensure a safe and problem-free drinking water supply in the Nation's capital.

E. '106 Grants

The District is facing serious problems because of lack of funds in its '106 grant. Staff reductions have reduced the program to a bare minimum. The District needs increased funding of its '106 grant to support the administration of its comprehensive water pollution control programs. However, the state match for Federal funds should continue at the existing level, as requirements to increase the state match will place an undue burden on the District of Columbia.

F. Watershed Management Approach

U.S. EPA is emphasizing the watershed management approach rather than the individual waterbody approach for the cleanup of waterbodies. The District is practicing the watershed management approach in the Anacostia River restoration and nutrient reduction of the Potomac River basin. Additional Federal funding should be provided to undertake additional tasks involved under the *CWA* Reauthorization to enhance the watershed approach.

9. Federal Facilities and Land in the District of Columbia

About 40% of the land in the District of Columbia is either owned or managed by the Federal government. In addition, most of the lands bordering the Potomac River, Rock Creek, and the Anacostia River are federally owned. The District of Columbia clearly will never be able to fully control nonpoint source runoff to its surface and ground waters without the cooperation of these Federal facilities.